

WHAT IS CLAIMED IS:

1.           A refrigerating and air-conditioning system comprising a refrigerating machine connected to a showcase by a first refrigerant flow passage to form a refrigerating apparatus, an air-conditioning apparatus for connection of an indoor equipment and an outdoor equipment by means of a second refrigerant flow passage, which forms a different refrigerant circuit from a refrigerant circuit formed by the first refrigerant flow passage, and a centralized control unit for controlling actions of the refrigerating machine and the air-conditioning apparatus, and wherein the showcase is installed in a room air-conditioned by the air-conditioning apparatus, and the centralized control unit is configured to reduce an indoor set temperature set by the air-conditioning apparatus relative to a fixed value according to a load on the showcase for operation.

2.           The refrigerating and air-conditioning system according to claim 1, wherein the centralized control unit is configured to detect a loaded condition of the showcases making use of data indicative of an operating state of a compressor provided in the refrigerating machine.

3.           The refrigerating and air-conditioning system according to claim 2, wherein the centralized control unit uses an operating current and an operating frequency of the compressor provided in the

refrigerating machine as data indicative of an operating state of the compressor, calculates an average operating current and an average operating frequency for the operating current and the operating frequency in a set period of time, and reduces a indoor set temperature in the air-conditioning apparatus relative to a fixed value according to the average operating current and the average operating frequency thus calculated for operation.

4.           The refrigerating and air-conditioning system according to claim 1, wherein the centralized control unit acquires and stores data indicative of an operating state of the compressor provided in the refrigerating machine, judges the necessity of inspection of the refrigerating machine on the basis of the data indicative of the compressor, and outputs a signal, which informs such judgment, to the air-conditioning apparatus when inspection is judged to be necessary.

5.           A refrigerating and air-conditioning system comprising a refrigerating machine connected to a showcase by a first refrigerant flow passage to form a refrigerating apparatus, an air-conditioning apparatus for connection of an indoor equipment and an outdoor equipment by means of a second refrigerant flow passage, which forms a different refrigerant circuit from a refrigerant circuit formed by the first refrigerant flow passage, and a centralized control

unit for controlling actions of the refrigerating machine and the air-conditioning apparatus, and wherein the showcase is installed in a room air-conditioned by the air-conditioning apparatus, and the centralized control unit gathers operation data of the refrigerating machine and the air-conditioning apparatus to operate the refrigerating machine and the air-conditioning apparatus under an operating condition that energy consumption of both the refrigerating machine and the air-conditioning apparatus affords energy saving.

6.           The refrigerating and air-conditioning system according to claim 5, wherein the centralized control unit detects operation pressure, temperature, compressor frequency, abnormality signal, and protective control signal in the refrigerating machine, and operation pressure, temperature, compressor frequency, abnormality signal, and remote control set temperature in the air-conditioning apparatus to control the refrigerating machine and the air-conditioning apparatus on the basis of such detection data.

7.           The refrigerating and air-conditioning system according to claim 5, wherein when the air-conditioning apparatus runs in cooling operation and in the case where it is judged that a compressor operating frequency of the refrigerating machine is larger than a preset reference value and an operating load of the

refrigerating machine is larger than a reference value even after the lapse of a predetermined period of time, and in the case where it is judged that a compressor operating frequency of the air-conditioning apparatus is smaller than a preset reference value and an operating load of the air-conditioning apparatus is smaller than a reference value even after the lapse of a predetermined period of time, the centralized control unit increases a compressor operating frequency of the air-conditioning apparatus to thereby reduce an operating load of the refrigerating machine and controls the air-conditioning apparatus and the refrigerating machine so that the whole refrigerating and air-conditioning system becomes best in operating efficiency.

8. The refrigerating and air-conditioning system according to claim 7, wherein a reference set temperature in cooling operation is beforehand stored, and when in order to reduce an operating load of the refrigerating machine, a compressor rotating speed on a side of the air-conditioning apparatus is temporarily increased to reduce temperature in a room, the temperature is automatically returned to the reference set temperature after the lapse of a predetermined period of time to reduce power consumption of the air-conditioning apparatus.

9. The refrigerating and air-conditioning system according to claim 5, wherein in the case where it is

judged that a compressor operating frequency of the refrigerating machine is smaller than a preset reference value and an operating load of the refrigerating machine is smaller than a reference value even after the lapse of a predetermined period of time, and in the case where it is judged that a compressor operating frequency of the air-conditioning apparatus is larger than a preset reference value and an operating load of the air-conditioning apparatus is larger than a reference value even after the lapse of a predetermined period of time, the centralized control unit increases a compressor operating frequency of the refrigerating machine to thereby reduce an operating load of the air-conditioning apparatus and controls the refrigerating machine and the air-conditioning apparatus so that the whole refrigerating and air-conditioning system becomes best in operating efficiency.

10. The refrigerating and air-conditioning system according to claim 5, wherein when the air-conditioning apparatus runs in heating operation and in the case where it is judged that a compressor operating frequency of the refrigerating machine is larger than a preset reference value and an operating load of the refrigerating machine is larger than a reference value even after the lapse of a predetermined period of time, control is performed to reduce an indoor set temperature in the air-conditioning apparatus.

11. The refrigerating and air-conditioning system according to claim 1, wherein the refrigerating machine comprises a heat exchanger for exhaust heat, capable of conducting heat to a heat exchanger provided in the outdoor equipment of the air-conditioning apparatus, and the centralized control unit causes the first refrigerant to flow through the heat exchanger for exhaust heat, provided in the refrigerating machine when the refrigerating machine runs in cooling operation and the air-conditioning apparatus runs in heating operation, whereby heat discharged from the heat exchanger for exhaust heat is conducted to the heat exchanger provided in the outdoor equipment of the air-conditioning apparatus.